

**ABSTRACT OF THE DISCLOSURE**

Wood pulp is bleached using hydrogen peroxide as the oxidative bleaching agent in the presence of magnesium hydroxide or magnesium oxide. The bleaching process is carried out in the presence of magnesium hydroxide as the predominant, and preferably essential, source of alkali. The process optionally includes transition metal chelants, such as DTPA or EDTA in the bleaching slurry. The process eliminates the need for added caustic and silicate in such systems and can be carried out at or near neutral pH of 5.0 to 8.5.

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